Claims

1. In a gearbox containing gearing and having a low section having a bottom wall, a rotatable drive shaft extending through said bottom wall and a seal located for preventing oil from leaking along an interface including a surface section of the shaft where it enters the gearbox, the improvement comprising: a contaminant collector having magnetic characteristics being mounted in said gearbox in a location closely adjacent a top surface of said seal so as to intercept and collect ferric contaminants before they engage the seal.

2. The gearbox defined in claim 1 wherein said contaminant collector is mounted for rotation with said shaft.

3. The gearbox as defined in claim 2 wherein said contaminant collector includes a ring press fit onto said shaft.

4. The gearbox defined in claim 3 wherein said magnetic characteristic is achieved by there being at least one magnetic component fixed as an integral part to an upper surface of said ring.

5. The gearbox defined in claim 4 wherein said ring is shaped so as to define an upwardly opening, annular channel; and said at least one magnetic component being a magnet located in said channel.

6. The gearbox defined in claim 5 wherein said channel is provided with at least one hole permitting oil to pass to said seal for cooling it.

7. The gearbox defined in claim 3 wherein said ring is shaped so as to define and upwardly opening, annular channel; and said magnetic characteristic being due to a plurality of magnets fixed in said channel at spaced locations.

8. The gearbox defined in claim 7 wherein a hole is provided between adjacent pairs of said magnets so as to permit oil to pass to said seal for cooling it.

9. In a sugar cane base cutter assembly including a gearbox provided with an upper, horizontal section extending between and joining a pair of depending wells, each well having a bottom wall, an upper drive shaft section of a base cutter leg being rotatably mounted in each bottom wall, and a seal being located on each shaft section at an associated bottom wall for preventing leakage of oil from said gearbox along the shaft section, the improvement comprising: a contaminant

collector having a magnetic characteristic being mounted above and closely adjacent each seal so as to intercept ferric contaminants settling towards the associated seal.

10. The base cutter assembly defined in claim 9 wherein each of said contaminant collectors is mounted for rotation with an associated one of the shaft sections.

11. The base cutter assembly defined in claim 10 wherein said contaminant collectors each include a ring press fit onto said associated one of the shaft sections.

12. The base cutter assembly defined in claim 11 wherein said magnetic characteristic of each contaminant collector is achieved by at least one magnet being fixed to each ring.

13. The base cutter assembly defined in claim 11 wherein each ring is formed so as to define an upwardly opening, annular channel; and said at least one magnet being located in said channel.

14. The base cutter assembly defined in claim 13 wherein at least one hole is provided in each ring to permit passage of oil from said channel to the associated seal to cool the seal.

15. The base cutter assembly defined in claim 11 wherein each ring is formed so as to define and upwardly opening, annular channel; and said magnetic characteristic of each contaminant collector being achieved by a plurality of magnets being fixed to the associated ring in spaced relationship to each other in said channel.

16. The base cutter assembly defined in claim 15 wherein a hole is provided in each of said rings between adjacent pairs of said plurality of magnets so as to permit oil to pass for cooling the seal.